

REMARKS

Claims 1-16 are pending.

The amendments to the specification replace the name of the manufacturer because Boehringer is now known as Roche Diagnostics. A sequence identifier has been added to the specification and the amino acid sequence of the HA tag has been added to the Sequence Listing.

The amendments are supported by the original disclosure and, thus, no new matter has been added. If the Examiner should disagree, however, s/he is respectfully requested to point out the challenged limitation with particularity in the next Action so support may be cited in response.

Further to the Form PTO-1449 and International Search Report submitted for the Examiner's consideration on December 10, 2001, Applicant submits herewith a translation of the International Preliminary Examination Report for the parent Appln. No. PCT/JP00/03764 and a corrected sheet with a "Statement concerning non-prejudicial disclosure or exception to lack of novelty" located between the Sequence Listing and the International Search Report of WO 00/77192.

Substitute paper and computer readable forms of the Sequence Listing are being submitted herewith. The paper and computer readable forms of the Sequence Listing do not add new matter, and their contents are the same. It is respectfully submitted that this submission complies with 37 CFR § 1.821 et seq. Otherwise, prompt notice of any defects in the Sequence Listing is earnestly solicited and additional time is requested to comply.

Applicant earnestly solicits an early examination on the merits. The Examiner is invited to contact the undersigned if any further information is required.

Respectfully submitted,

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APPENDIX

MARKED-UP VERSION TO SHOW CHANGES

IN THE SPECIFICATION

The specification is amended as follows.

Page 33, line 32, to page 34, line 10:

An expression vector for the rat Reg protein cDNA isolated in Example 7 was constructed, and it was transiently expressed in COS-7 cells. The rat Reg binding protein cDNA, into which an oligonucleotide encoding hemagglutinin (HA) nonapeptide-tag (YPYDVDPDYA, SEQ ID NO: 10) at the N-terminus was ligated, was inserted into a pCI-neo mammalian expression vector (Promega). This vector was introduced to COS-7 cells by electroporation and expressed. After a 48 h incubation, cells were collected, homogenized, and fractionated as described (S. Takasawa et al., J. Biol. Chem. 268, 26052 (1983); H. Okamoto et al., Meth. Enzymol. 280, 306 (1997)). The protein sample was electrophoresed on a 12.5 % (w/v) SDS-polyacrylamide gel and transferred to immobilon-P (Millipore). Western blot analysis was carried out described as in S. Takasawa et al., J. Biol. Chem. 270, 30257 (1995); H. Okamoto et al., Meth. Enzymol. 280, 306 (1997). Monoclonal antibody against HA was anti-HA 3F10 (Roche Diagnostics [Boehringer]).

Page 35, line 31, to page 36, line 7:

The rat receptor expression vector with HA-tag was introduced into CHO cells and RINm5F cells. Cells were cultured in Roswell Park Memorial Institute 1640 medium (RPMI1640) with 10% fetal calf serum (Bio Whittaker, Walkersville, Maryland) and 250 µg/ml neomycin (Gibco) for 2 weeks [S. Takasawa et al., J. Biol. Chem. 273, 2497 (1998)]. Stable transformants expressing high levels of the recombinant protein were screened by immunoblot analysis of HA and isolated. Stable transformants expressing Reg receptor were cultured in RPMI1640 medium with 1% fetal calf serum in the presence of increasing concentrations of rat Reg protein for 24 h. During the last 2 h,

BrdU (10 M) was added to the culture medium and BrdU incorporation was measured using a colorimetric cell proliferation ELISA kit (Roche Diagnostics [Boehringer]).

Page 37, lines 15 to 26:

After a 24 h incubation of the stable transformants expressing Reg receptor in RPMI1640 medium with 1% fetal calf serum in the presence of various concentrations of rat Reg protein, a solution containing WST-1 was added to the medium and cultured further for 30 min and the cleavage of tetrazolium salt 4[-3-(4-iodophenyl)-2-(4-nitrophenyl)-2H-5- tetrazolio]-1,3-benzene disulfonate (WST-1) by mitochondrial dehydrogenases was measured in viable cells using a Cell Proliferation Reagent WST-1 (Roche Diagnostics [Boehringer]). The cell number of RINm5F cells were increased in response to the addition of Reg protein (0.3-100 nM), but were reduced when the cells were incubated with high concentrations of Reg protein (Figure 8B).

IN THE CLAIMS

The claims are amended as follows.

8. (Amended) A method of screening for one or more [a] compounds that bind[s] to the protein or peptide according to claim 2, wherein said method comprises the following steps of,

(a) contacting the protein or peptide with a test sample containing one or more compounds,

(b) detecting the binding of the test sample to the protein or peptide, and,

(c) selecting the one or more [a] compounds that bind[s] to the protein or peptide.

9. (Amended) A method of screening for one or more [a] compounds that inhibit[s] the binding of Reg protein to the protein or peptide according to claim 2, wherein said method comprises the following steps of,

(a) contacting Reg protein with the protein or peptide [according to claim 2] in the presence of a test sample containing one or more compounds,

(b) detecting the binding of Reg protein to the protein or peptide [according to claim 2], and,

(c) selecting the one or more [a] compounds that decrease[s] the binding.

10. (Amended) A compound isolated by the method according to claim 9, wherein said compound inhibits the binding of Reg protein to the protein or peptide [according to claim 2].

11. (Amended) A method of screening for one or more [a] compounds that promote[s] or inhibit[s] signal transduction caused by an activation of the protein according to claim 2, wherein said method comprises the following steps of,

(a) contacting Reg protein with a cell expressing the protein [according to claim 2] on the cell surface, in the presence of a test sample containing one or more compounds,

(b) detecting a change of the cell in response to the stimulation by Reg protein,

(c) selecting the one or more [a] compounds that enhance[s] or suppress[es] the change of the cell as compared to when detected in the absence of the test sample.

IN THE SEQUENCE LISTING

The substitute paper and computer readable copies of the Sequence Listing are attached.